



**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF: DANA SCRANTON ET AL.

APPLICATION NO.: 10/055,467

FILED: JANUARY 22, 2002

FOR: **VAPOR CLEANING AND LIQUID RINSING  
PROCESS VESSEL**

EXAMINER: FRANKIE L. STINSON

ART UNIT: 1746

CONF. NO: 6380

**DECLARATION UNDER 37 CFR RULE 1.131**

**BY INVENTOR DANA SCRANTON**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

I, Dana Scranton, declare as follows:

1. I am an inventor of the invention described in U.S. Patent Application Serial No. 10/055,467 for a single vessel vapor cleaning and rinsing system.

2. I conceived of the invention described in the claims of Application Serial No. 10/055,467 before 08/31/1999. Attached as Exhibit A is Invention Disclosure No. D98-0067, which I prepared before 08/31/1999.

**Certificate of Mailing**

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

September 28, 2005  
Date of Deposit


Debbie Gilbert  
Debbie Gilbert

3. After I prepared the Invention Disclosure attached as Exhibit A, I continued developing further ideas for the single vessel process tool described in the Invention Disclosure, both before and after 08/31/1999.

4. Upon information and belief, the invention described in Exhibit A was subsequently approved for patenting and provided to Patent Counsel in October 2000, for preparation of a patent application. Subsequently, I had several communications with Patent Counsel in connection with preparing a draft patent application, and subsequently a final patent application, which was filed 01/22/2002.

5. I declare that all statements made above of my own knowledge are true, and that all statements made above upon information and belief are believed to be true, and further, I acknowledge that willful false statements and the like are punishable by fine or imprisonment, or both, and may jeopardize the validity of the application or any patent issuing thereon.

Dated: 9-27-2005

  
Dana Scranton



# INVENTION DISCLOSURE

SEMITOOL, INC.

D98-0067

IN CASE OF MULTIPLE INVENTORS: GET PAGE 2 OF THIS DISCLOSURE;  
EACH INVENTOR MUST FILL OUT INVENTOR INFORMATION.

- Note:
1. Use Ink or Type Only
  2. Do not erase errors. Line through any errors, initial and date.
  3. Describe invention with drawings, sketches, etc. and a written explanation. Drawings may be below or attached. If attached, the inventor(s) and witnesses must sign and date each sheet.
  4. Describe the advantages of this invention compared to the current approach, if any.
  5. Inventor(s) and two (2) witnesses must sign and date each sheet.
  6. Send original signed documents to the Intellectual Property Department. Retain a personal copy.

Inventor's Full Name (include middle initial, jr., sr., I, II, etc.)

Dana R. Scranton

☐

Check Box if there is more than one inventor (use page two of disclosure for additional inventors)

Inventor's Physical Home Address: 314 Hilltop Ave., Kalispell, MT 59901

Inventor's Citizenship: US

Title of Invention: Single vessel processor having in combination a moist vapor-ozone means and a drying means

Tool or Process: Organic Cleaning in Single Vessel  
Surface Preparation

Division: Other

If Other, describe:

## Invention:

Sketch, Explanation and Advantages: A single vessel process tool incorporates a moist vapor ozone process in which ozone is bubbled through water, water being at a temperature which facilitates vapor formation in the gas-phase region contained within a vessel which is above the surface of the water and which contains a semiconductor wafer or plurality of semiconductor wafers. Also incorporated within the same vessel is a drying means, said drying means consisting of but not limited to surface tension gradient drying, IPA drying, or dry gas drying.

The principle advantage of this system is that it provides for an organic contaminant cleaning process, rinsing process, and drying process within a single vessel, thus facilitating a smaller footprint for the equipment.

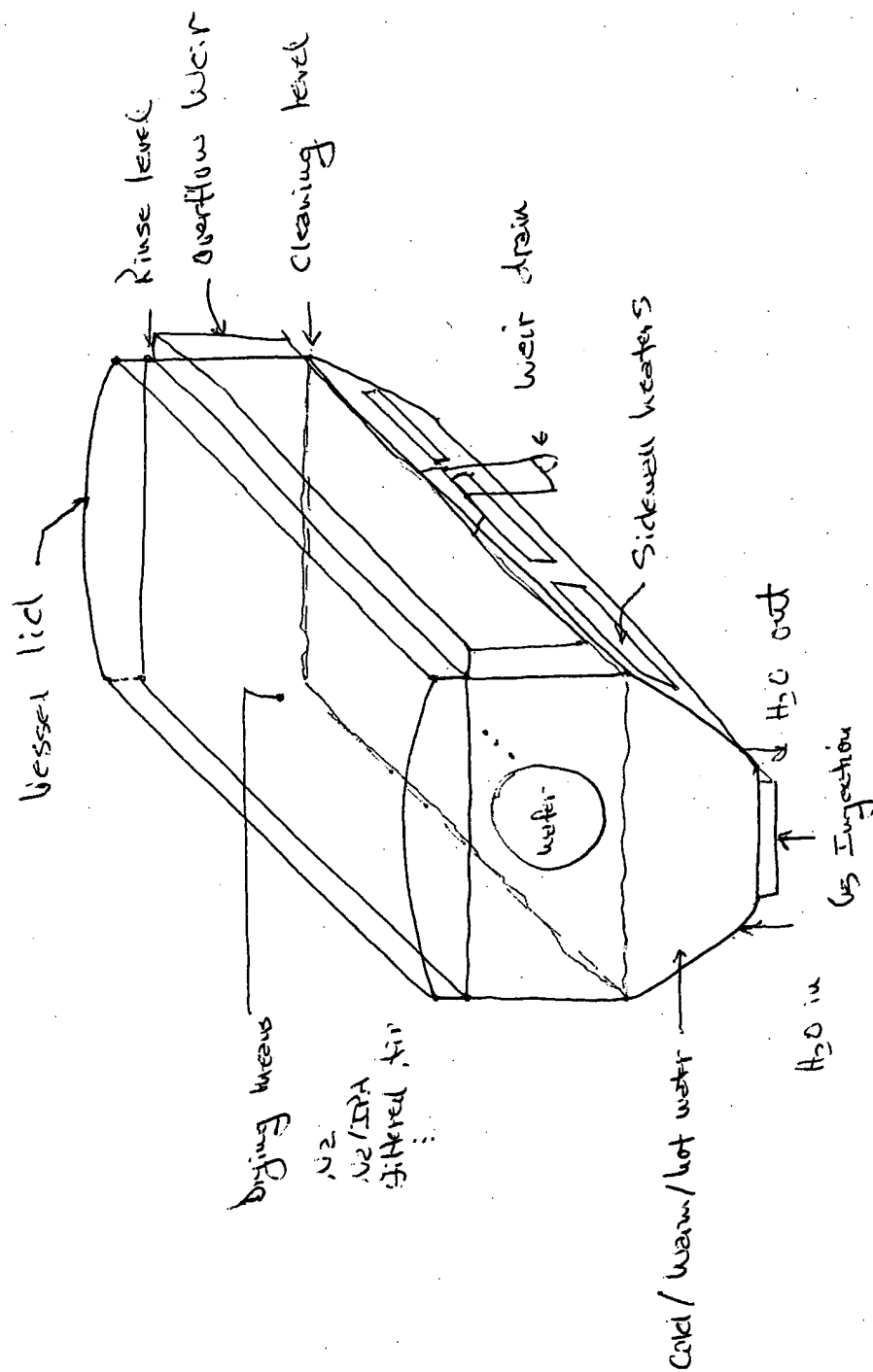
Signature(s) of Inventor(s): Dana R. Scranton Date:

Date of Conception:

Date of First

Sketch/Drawing:

Date Redacted



Combination of a moist vapor/O<sub>2</sub> process and a drying means comprising a single vessel.

Date Redacted

*[Signature]*